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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/673,560   | 09/30/2003  | Toshifumi Otsubo     | 2038-298            | 6441             |
| 22429  | 7590        | 08/01/2005           | EXAMINER            |                  |
| LOWE HAUPTMAN GILMAN AND BERNER, LLP<br>1700 DIAGONAL ROAD<br>SUITE 300 /310<br>ALEXANDRIA, VA 22314 |             |                      | PICKETT, JOHN G     |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3728                |                  |

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/673,560

Applicant(s)

OTSUBO, TOSHIFUMI

Examiner

Gregory Pickett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3 and 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. The amendment dated 19 July 2005 is hereby entered. Claims 3 and 11-20 are pending in the application. Claims 1, 2, and 4-10 have been cancelled.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

3. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan et al (US 4,326,528; hereinafter Ryan) in view of Yee (US 5,282,687).

Regarding claim 3, Ryan discloses a folded disposable diaper with a front and rear waist region, a crotch region, and transversely opposite lateral portions of the front and rear regions attached to form a waist hole and leg holes (see Figures 2 and 3). The transversely opposite portions folded inwardly along fold lines that intersect an edge of one of the leg holes (see Figures 1, 4, and 7).

Ryan lacks, or does not expressly disclose a plurality of said diapers within a flexible sheet bag.

Yee discloses a bag 20 for a plurality of diapers 96 and stored in a state of compression (see for example, Col. 10, lines 12-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the diapers of Ryan in a bag as taught by Yee in order to provide a plurality of diapers to the consumer within a single container.

Ryan-Yee discloses the claimed invention except for the specific compressive force. Yee shows that variation of compressive forces effects ease of product withdrawal (see Col. 12, lines 1-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the assembly of Ryan-Yee in the claimed compressive force ranges in order to ensure appropriate material stresses in addition to ease of product withdrawal. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

As to claim 11, Ryan-Yee, as applied to claim 3 above, discloses the claimed invention.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woon et al (US 4,050,462; hereinafter Woon) in view of Yee.

Woon discloses a folded disposable diaper with a front and rear waist region, a crotch region, and transversely opposite lateral portions of the front and rear regions attached to form a waist hole and leg holes (see Figures 1 and 6). The transversely

opposite portions folded inwardly along fold lines that intersect an edge of one of the leg holes (see Figure 6).

Woon lacks, or does not expressly disclose a plurality of said diapers within a flexible sheet bag.

Yee discloses a bag **20** for a plurality of diapers **96** and stored in a state of compression (see for example, Col. 10, lines 12-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the diapers of Woon in a bag as taught by Yee in order to provide a plurality of diapers to the consumer within a single container.

Woon-Yee discloses the claimed invention except for the specific compressive force. Yee shows that variation of compressive forces effects ease of product withdrawal (see Col. 12, lines 1-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the assembly of Woon-Yee in the claimed compressive force ranges in order to ensure appropriate material stresses in addition to ease of product withdrawal. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al (US 6,312,420; hereinafter Sasaki) in view of Yee and either Woon or Ryan.

Sasaki discloses a disposable diaper **1** with a front and rear waist region, a crotch region, and transversely opposite lateral portions of the front and rear regions attached to form a waist hole and leg holes (see Figure 1).

Sasaki lacks, or does not expressly disclose folded-in lateral portions, or a plurality of said diapers within a flexible sheet bag.

Both Ryan and Woon disclose folding in lateral portions in order to present the diaper in a compact form. It would have been obvious to one of ordinary skill in the art at the time the invention was made to fold in the lateral portion of Sasaki in order to present the diaper in a compact form.

Yee discloses a bag **20** for a plurality of diapers **96** and stored in a state of compression (see for example, Col. 10, lines 12-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the diapers of Sasaki-Woon/Ryan in a bag as taught by Yee in order to provide a plurality of diapers to the consumer within a single container.

Sasaki-Woon/Ryan-Yee discloses the claimed invention except for the specific compressive force. Yee shows that variation of compressive forces effects ease of product withdrawal (see Col. 12, lines 1-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the assembly of Sasaki-Woon/Ryan-Yee in the claimed compressive force ranges in order to ensure appropriate material stresses in addition to ease of product withdrawal. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering

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the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

6. Claims 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki-Woon/Ryan-Yee as applied to claim 3 above, and further in view of Suzuki et al (US 6,165,160; hereinafter Suzuki).

Regarding claims 12 and 14, Sasaki-Woon/Ryan-Yee, as applied to claim 3 above, discloses the claimed invention except for the overlapping lateral portions.

Suzuki discloses overlapping lateral portions **23** used to fold the diaper into a small arrangement (see Figure 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to overlap the lateral portions of Sasaki-Woon/Ryan-Yee in order to form the diaper in a compact state. The examiner notes that the lateral portions of Sasaki are large and would otherwise project to a great extent without overlapping of the lateral portions.

As to claim 13, Sasaki discloses a liquid absorbent core as claimed (see Figure 2).

As to claim 15, Yee teaches compact, flat diapers (see Figure 9).

As to claim 16, Woon discloses the fold line at the upper portion of the leg portion, as this location would provide the most compact size its location is deemed obvious and as such the fold line would be located as claimed.

As to claims 17 and 18, the edge parts **24** of Sasaki are tucked in and do not form a part of the outer contour,

As to claim 19, Sasaki is a pants-type diaper (see Figure 1).

As to claim 20, Yee discloses box-shape (see Figure 11) and integral handle **44**.

### ***Response to Arguments***

7.. Applicant's arguments filed 19 July 2005 have been fully considered but they are not persuasive. Applicant's arguments concerning Woon et al or Ryan et al in view of Schmidt et al are moot in view of the new grounds of rejection. Newly presented Yee clearly shows compressive force is a results-effective variable with ease of withdrawal being the desired result (see Col. 12, lines 1-13).

8. In response to applicant's argument that Suzuki et al teaches away from the claimed invention, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Suzuki et al clearly shows that overlapping of the folded parts results in a compact form (Figure 3). While the examiner concedes that Suzuki et al has a purpose for placing the external parts externally, when considering the combined teachings of the presented references as a whole, one of ordinary skill in the art would have recognized that external placement of the flaps would result in greater friction between the stored articles and result in an unacceptable increase in the withdrawal



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force requirements. Tucking the overlapping folded parts internally, as taught by both Ryan and Woon, in addition to the overlapping as taught by Suzuki et al, would result in a smoother surface contact and reduced frictional forces, thereby making the products more easily removable.

### ***Conclusion***


9. As the examiner presents new grounds of rejection, this Office Action is made **NON-FINAL**.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Pickett whose telephone number is 571-272-4560. The examiner can normally be reached on Mon-Fri, 11:30 AM - 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mickey Yu can be reached on 571-272-4562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Greg Pickett  
Examiner  
28 July 2005

  
DAVID T. FIDEI  
PRIMARY EXAMINER